

## REMARKS

This is a full and timely response to the outstanding final Office Action mailed January 25, 2005. Claims 1 - 11 and 13 - 21 remain pending. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

### Previous Rejections

Applicant respectfully acknowledges that the rejections previously asserted with respect to *Lin* have been removed.

### Rejections Under 35 U.S.C. §102

The Office Action indicates that claims 1 – 10 and 13 - 21 stand rejected under 35 U.S.C. §102(b) as being anticipated by *Betrissey*. Applicant respectfully traverses the rejection.

In this regard, *Betrissey* generally relates to the adjusting of character dimensions to compensate for low contrast features that appear when the characters are displayed on a display device. In particular, *Betrissey* discloses:

The methods involve oversampling image data representing a character by obtaining multiple samples for each of a plurality of pixel sub-components of a pixel. The alpha values associated with pixel sub-components at or near the position of the character features are increased to give the appearance of larger dimensions of the character features and greater contrast in the displayed image.

(*Betrissey*, Abstract)

Additionally, *Betrissey* discloses:

***The present invention relates to methods and apparatus for displaying images, e.g., text characters, on display devices which have multiple separately controllable luminance elements per pixel.***

In accordance with the present invention, pixel sub-components are treated as individual luminous intensity sources which can be separately controlled to represent different portions of a source image. ***As part of the display process***

*of the present invention, high resolution representations of images, e.g., outline representations of text characters to be displayed, are super-sampled.* Sets of samples corresponding to different but potentially overlapping image portions are then used to control the light output of individual pixel sub-components of each pixel. The samples, in the set of samples used to control each pixel sub-component are filtered, e.g., summed, to generate a filtered alpha value corresponding to a pixel sub-component. In this manner, a set of filtered alpha values, one for each pixel sub-component of a pixel is generated. (*Betrisey*, col. 5, line 51 to col. 6, line 2). (Emphasis Added).

Based on the foregoing, Applicant respectfully asserts that *Betrisey* clearly involves modification of image data for use in displaying that data on a display device, in contrast to modification of image data for use in producing documents, as is generally recited in the pending claims. Therefore, Applicant respectfully asserts that the teachings of *Betrisey* are not relevant for the purpose of rendering the pending claims unpatentable, as those teaching relate to an entirely different art.

Even if *Betrisey* is considered relevant art (which it clearly is not), *Betrisey* does not teach or otherwise disclose various features recited in the pending claims. For example, the Office Action indicates that *Betrisey* discloses a document processing device that is configured to produce a document with the image data modified by the method of *Betrisey*. However, Applicant respectfully notes that a printer is mentioned only as an optional component to be used with the system of *Betrisey*, and that the functional relationship between the image data modified and such a printer is not taught. Specifically, there is no teaching that relates the output of *Betrisey*'s "bloated" TEXT OUTPUT data line as the input to a printer. In this regard, Applicant respectfully notes that the TEXT OUTPUT 837 of FIG. 12 is provided to a graphics display interface 801 and not to a printer.

Further, Applicant respectfully asserts that such a relationship would be contrary to the teachings of *Betrisey*, because those teachings relate to modification of data that is to be displayed. There is nothing in that reference to indicate that such a modification of data is

undertaken for printing of that data, because the problem that such a modification is intended to resolve is only applicable to display device-rendered data.

Referring now to the claims, claim 1 recites:

1. ***A document processing system*** for modifying image data, the image data including a foreground component and a background component, said document processing system comprising:
  - a document processing device operative to acquire image data corresponding to a document by scanning the document; and
  - an image enhancement system configured to communicate with the document processing device and receive the image data acquired, receive information corresponding to a request for modification of the image data, and, ***in response to the request, modify the image data by increasing contrast between the foreground component and the background component and altering lightness of both the foreground component and the background component,***
    - wherein said document processing device is configured to produce a document with the image data modified by the image enhancement system.***  
(Emphasis Added).

Applicant respectfully asserts that *Betrisey* is legally deficient for the purpose of anticipating claim 1. In particular, Applicant respectfully asserts that the reference does not teach or otherwise disclose at least the features/limitations emphasized above in claim 1. Therefore, Applicant respectfully asserts that claim 1 is in condition for allowance.

Since claims 2 – 10 and 21 are dependent claims that incorporate all the features/limitations of claim 1, and are not otherwise rejected in the Office Action, Applicant respectfully asserts that these claims also are in condition for allowance. Additionally, these claims recite other features/limitations that can serve as an independent basis for patentability.

By way of example, claim 2 recites:

2. The document processing system of claim 1, further comprising:
  - an actuator communicating with said image enhancement system, ***said actuator having an actuated state corresponding to the request for modification of the image data.***  
(Emphasis Added).

Applicant respectfully asserts that the cited art is legally deficient for the purpose of anticipating claim 2, because the cited reference does not teach or otherwise disclose at least the additional features/limitations emphasized above in claim 2.

In this regard, the Office Action indicates that *Betrisey* discloses the aforementioned features of claim 2 as represented by keyboard 740 of personal computer 720. Although Applicant agrees with the contention that the cited keyboard contains structure that may be considered as an actuator, the structure of *Betrisey* does not function in the manner recited in Applicant's claim 2. That is, the keyboard of *Betrisey* does not include an "actuator having an actuated state corresponding to the request for modification of the image data" as *Betrisey*'s modification is an automated process. Therefore, Applicant respectfully asserts that claim 2 clearly is in condition for allowance.

By way of further example, claims 7 – 9 recite:

7. The document processing system of claim 6, at said first increment, lightness of only one of the foreground component and the background component *is increased*.

8. The document processing system of claim 6, wherein, at said first increment, lightness of only one of the foreground component and the background component *is decreased*.

9. The document processing system of claim 6, wherein, at said first increment, *lightness of only one of the foreground component and the background component is altered*, and at a second increment, *the image data is modified by altering lightness of the other of the foreground component and background component such that overall lightness of the image data is altered*.

(Emphasis added to each).

In this regard, the Office Action indicates that *Betrisey* discloses the aforementioned features of claim 7 with reference to the table of FIG. 13, which indicates a particular manner of altering Alpha values. Notably, the Office Action states that "claims 8, 9, 18 and 19 are rejected the same as claim 7." However, as is clearly set forth above, claims 8 and 9 recite

limitations that, in some respects, are in direct contrast to those recited in claim 7. Since the table of FIG. 13 of the cited reference only teaches one particular manner of altering Alpha values, Applicant respectfully asserts that claims 8 and 9 clearly are in condition for allowance. However, if the rejection of these claims is to be maintained, Applicant respectfully requests clarification of the rejection of claims 8 and 9.

With respect to claim 13, that claim recites:

13. A method for modifying image data, the image data including a foreground component and a background component, said method comprising:  
*receiving image data corresponding to a document to be printed* by a document processing device;  
receiving information corresponding to a request for modification of the image data, the request corresponding to actuation of an actuator of the document processing device; and  
in response to the request, modifying the image data by increasing contrast between the foreground component and the background component and altering lightness of both the foreground component and background component.  
(Emphasis Added).

Applicant respectfully asserts that *Betrisey* is legally deficient for the purpose of anticipating claim 13. In particular, Applicant respectfully asserts that the reference does not teach or otherwise disclose at least the features/limitations emphasized above in claim 13. Therefore, Applicant respectfully asserts that claim 13 is in condition for allowance.

Since claims 14 – 20 are dependent claims that incorporate all the features/limitations of claim 1, and are not otherwise rejected in the Office Action, Applicant respectfully asserts that these claims also are in condition for allowance. Additionally, these claims recite other features/limitations that can serve as an independent basis for patentability.

### **Rejections Under 35 U.S.C. §103**

The Office Action indicates that claim 11 stands rejected under 35 U.S.C. 103(a) as being unpatentable over *Betrisey* in view of *Schreiber*. Applicant respectfully traverses the rejection. In this regard, Applicant respectfully asserts that the cited art, either individually or in combination, is legally deficient for the purpose of rendering claim 1 unpatentable for at least the reasons indicated above. Since none of the references or combinations thereof teaches or reasonably suggests at least the features/limitations emphasized above in claim 1, Applicant respectfully asserts that claim 11, which depends therefrom, also is in condition for allowance.

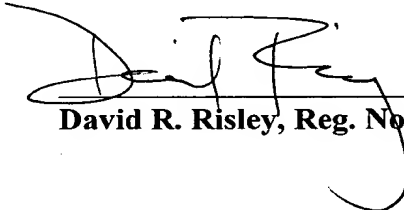
### **Cited Art Made of Record**

The cited art made of record has been considered, but is not believed to affect the patentability of the presently pending claims.

### CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

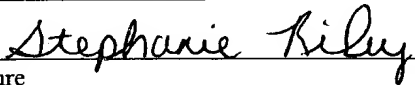


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